

REMARKS

Claims 1, 2, 4, 6-34, 36, and 38-67 are pending and under consideration in this application. Claims 68 and 69 are canceled herein without prejudice or disclaimer. Further reconsideration is requested based on the foregoing amendment and the following remarks.

Response to Arguments:

The Applicants appreciate the consideration given to their arguments. The Applicants, however, are disappointed that their arguments were not found to be persuasive. The Office Action asserts in section 35, at page 11, lines 12-15, that:

Examiner maintains that the Howard reference teaches on the claim limitation of estimating the "legality of an access request" as taught by Howard in column 7, line 66 -- column 8, line 20. Howard teaches the evaluation of a string that is being sent from a client to a server location to determine if the string contains an attack pattern.

But a string containing an attack pattern cannot be a *legal* request for access. Thus, to assert that Howard shows estimating the "legality of an access request" is submitted to be without basis.

The Office Action asserts further in section 35, at page 11, lines 15-18, that:

If an attack pattern is found the string can be identified as a string containing an attack pattern and remedial actions may be performed, for example, to block the string from being received at the server.

Here, again, if Howard is *blocking* a string being received at the server, the string cannot be a *legal* request for access. Thus, to assert that Howard shows estimating the "legality of an access request" is submitted to be without basis.

The Office Action goes on to assert in section 35, at page 10, lines 19-22, continuing at page 12, lines 1 and 2, that:

Regarding that to which is claimed by applicants, legality of an access request is best understood given broadest reasonable interpretation, the access request being a message being sent to a server from a client device wherein legality of the message is understood as the determination of whether or not a message should or should not be allowed to be forwarded to a server.

Determining whether or not a message should or should not be allowed to be forwarded to a server, however, only amounts to *screening* the message. No estimate of the *legality* of the messages is performed in Howard. Rather, in Howard, if a message matches an *illegal* search

string it is deemed to be *illegal*. The fact that a message does *not* match an illegal search string leads to no estimate of the *legality* of the message. Rather, the message is simply forwarded to the server without comment. The third clause of claim 1, in contrast, recites, "a pattern estimation unit which estimates legality of an access request based on the illegal access patterns stored in the illegal pattern database and on a predetermined pattern estimation rule."

The Office Action goes on to assert in section 35, at page 12, lines 2-6, that:

This interpretation is based on what is provided in the applicants' filed specification for example on page 13, lines 13-20. No real guidance is given within the claims as to what extent the term "estimation" is to be interpreted regarding scope. Therefore, what Howard teaches is deemed to be within the scope of the claimed limitation.

The subject application describes at page 13, lines 13-20:

Although not shown in Fig. 2, the illegal request DB 33 also stores a plurality of illegal command character strings each of which executes an arbitrary system command on the Web server 40. By storing the patterns of these command character strings in the illegal request DB 33, it is possible to protect the Web server 40 not only from an illegal access using a known attacking method but also an illegal access using an unknown attacking method.

Howard describes no ability to protect a Web server from an illegal access using an *unknown* attacking method, as described in the specification. Howard, rather, compares an input search string to a database of *known* attack patterns. Even so, support for the third clause of claim 1 is not limited to that paragraph of the specification cited in the Office Action. As described further at page 13, lines 21 to 25, continuing at page 14, lines 1-5:

By referring to the illegal request DB 33, the estimation section 32 estimates the legality of the HTTP request based on a predetermined estimation rule 32a. Specifically, if the HTTP request corresponds to any one of the illegal access patterns stored in the illegal request DB 33, the estimation section 32 estimates that the HTTP request is an illegal access. If the HTTP request does not correspond to any illegal access patterns stored in the illegal request DB 33, the estimation section 32 estimates that the HTTP request is a legal access.

Howard, on the other hand, describes no estimation section 32 estimating the legality of an HTTP request based on a predetermined estimation rule 32a, let alone "a pattern estimation unit which estimates legality of an access request based on the illegal access patterns stored in the illegal pattern database and on a predetermined pattern estimation rule," as recited in the third clause of claim 1.

The Office Action asserts in section 36, at page 12, lines 10-17, that:

Howard teaches in column 7, line 66 - column 9, line 20 the evaluation of input

strings to determine the presence of input strings. Howard teaches in column 7, lines 24-30 the use of memory that contains one or more patterns that have been defined and make up a pattern collection. Therefore, in view of point (A) and what is further taught by Howard, Howard does teach on the claim limitation "a pattern estimation unit which estimates legality of an access request based on the illegal access patterns stored in the illegal pattern database and on a predetermined pattern estimation rule".

To the contrary, Howard describes no "pattern estimation unit which estimates legality of an access request based on the illegal access patterns stored in the illegal pattern database and on a predetermined pattern estimation rule," as recited in the third clause of claim 1. Howard, rather, is only determining whether or not a message should or should not be allowed to be forwarded to a server, *i.e.*, *screening* the message, as discussed above. Memory location 304, in particular, stores search patterns that the pattern matching engine 302 can use to evaluate an input string to determine whether it likely constitutes an attack on the server, *i.e.*, whether it is an illegal search string. In particular, as described at column 8, lines 24 to 34:

In the FIG. 4 embodiment, input string screening tool 300 includes a pattern matching engine 302 and a memory location 304. Memory location 304 contains one or more patterns that have been defined and make up a pattern collection 306. The patterns are stored in the memory location and are accessible to the screening tool for evaluating input strings. The pattern matching engine can retrieve one or more search patterns and use them to evaluate an input string to determine whether it likely constitutes an attack on the Web server.

Howard needs no "pattern estimation unit which estimates legality of an access request based on the illegal access patterns stored in the illegal pattern database and on a predetermined pattern estimation rule," as recited in the third clause of claim 1, for that. Further reconsideration is thus requested.

Claim Rejections - 35 U.S.C. § 103:

Claims 1, 2, 4, 6-19, 26-30, 33, 34, 36, 38-51, 58-62, 65, 66, and 67 were rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 7,051,368 to Howard *et al.* (hereinafter "Howard") in view of US 2003/0051026 to Carter *et al.* (hereinafter "Carter"). The rejection is traversed. Reconsideration is earnestly solicited.

The third clause of claim 1 recites:

A pattern estimation unit which estimates legality of an access request based on the illegal access patterns stored in the illegal pattern database and on a predetermined pattern estimation rule.

Neither Howard nor Carter teach, disclose, or suggest estimating the "legality of an

access request," let alone "a pattern estimation unit which estimates legality of an access request based on the illegal access patterns stored in the illegal pattern database and on a predetermined pattern estimation rule," as recited in claim 1. Howard, rather, screens input strings to identify strings that contain attack patterns that can be used to *attack* a Web server. Attack patterns are not contained in legal access requests. In particular, as described at column 1, lines 7-12:

This invention relates to methods and systems for screening input strings that are intended for use by Web servers. In particular, the invention pertains to methods and systems for identifying input strings that contain attack patterns that can be used to attack a Web server, and, in some instances, reacting to the attack patterns once identified.

Since Howard screens input strings to identify attack patterns that can be used to attack a Web server, Howard is not estimating "legality of an access request based on the illegal access patterns stored in the illegal pattern database and on a predetermined pattern estimation rule," as recited in claim 1.

Howard, furthermore, is *screening* input strings. In particular, as described at column 2, lines 14 and 15:

Methods and systems of screening input strings that are intended for use by a Web server are described.

Since Howard is screening input strings, Howard is not estimating the "legality of an access request," as recited in claim 1.

Furthermore, in Howard, an input string that is intended for use by a Web server is received and evaluated using the search pattern to ascertain whether an *attack* pattern is present. In particular, as described at column 2, lines 20-25:

An input string that is intended for use by a Web server is received and evaluated using the search pattern to ascertain whether the attack pattern is present. If an attack pattern is found that matches the search pattern, then a remedial action is implemented.

Since Howard evaluates an input string to ascertain whether an attack pattern is present, Howard is not estimating the "legality of an access request," as recited in claim 1.

Finally, in Howard, an input string is evaluated using the search pattern to ascertain whether an *attack* pattern is present. In particular, as described at column 8, lines 52-67:

A Web server input string screening method comprising:
determining an attack pattern that can be used to attack a Web server, the attack pattern comprising content that is determined as constituting one or more of a

disclosure attack or an integrity attack on the Web server, defining a search pattern that can be used to detect the attack pattern, the search pattern being defined in a manner that permits variability among its constituent parts; receiving an input string that is intended for use by a Web server; evaluating the input string using the search pattern to ascertain whether the attack pattern is present; and implementing a remedial action if an attack pattern is found that matches the search pattern.

Since Howard evaluates an input string to ascertain whether an attack pattern is present, Howard is not estimating the "legality of an access request," as recited in claim 1.

Carter is not estimating "legality of an access request based on the illegal access patterns stored in the illegal pattern database and on a predetermined pattern estimation rule" either, and thus cannot make up for the deficiencies of Howard with respect to claim 1 in any case. Thus, even if Howard and Carter were combined as proposed in the Office Action, claim 1 would not result.

The fifth clause of claim 1 recites:

A transmission unit which controls transmission of the access request based on the determination result of the pattern determination unit so as to transmit the access request to the server when the access request is estimated to be legal.

Neither Howard nor Carter teach, disclose, or suggest transmitting "the access request to the server when the access request is estimated to be legal," let alone "a transmission unit which controls transmission of the access request based on the determination result of the pattern determination unit so as to transmit the access request to the server when the access request is estimated to be legal," as recited in claim 1. No estimate is made in Howard of the "legality of an access request," as discussed above. Howard, rather, processes any input string as long as there are no *attack* patterns present in the input string. In particular, as described at column 7, lines 36-45:

Step 206 receives an input string from the client that is intended for use by the Web server, and step 208 evaluates the input string using one or more of the search patterns. Step 210 determines whether any of the attack patterns are present in the input string. An attack pattern is present if a match is found for the search pattern in the input string. If there are no attack patterns present in the input string, then step 212 processes the input string or request that is associated with the input string.

Since Howard screens input strings to identify attack patterns that can be used to attack a Web server, Howard is not transmitting "the access request to the server when the access request is estimated to be legal," as recited in claim 1.

Howard, furthermore, implements a remedial action if an *attack pattern* is identified to be associated with the input string. In particular, as described at column 7, lines 47-51:

If, on the other hand, there is an attack pattern that is identified to be associated with the input string (i.e. an attack pattern is found in the input string that matches the search pattern), then step 214 implements a remedial action.

Since Howard implements a remedial action if an attack pattern is identified to be associated with the input string, Howard is not transmitting “the access request to the server when the access request is estimated to be legal,” as recited in claim 1.

Howard, finally, denies a request that is associated with the input string *having* an attack pattern. Howard does not mention treatment accorded any input string that has no attack patterns present in the input string. In particular, as described at column 7, lines 51-58:

Remedial actions can be any actions that are associated with minimizing or eliminating the effect that an attack pattern can have on the Web server. In but one example, this can include denying a request that is associated with the input string. For example, in the case of an input string that is a URL, this could mean returning an error message to the client to the effect that the request could not be executed.

Since Howard denies a request that is associated with the input string having an attack pattern, Howard is not transmitting “the access request to the server when the access request is estimated to be legal,” as recited in claim 1.

Carter is not transmitting “the access request to the server when the access request is estimated to be legal,” either, and thus cannot make up for the deficiencies of Howard with respect to claim 1 in any case. Thus, even if Howard and Carter were combined as proposed in the Office Action, claim 1 would not result.

The sixth and seventh clauses of claim 1 recite:

The pattern estimation unit calculates a predetermined estimation value according to a degree of correspondence of the access requests to the illegal access patterns stored in the illegal pattern database; and the pattern determination unit compares the estimation value calculated by the pattern estimation unit with a predetermined threshold value, and determines whether the access request is to be transmitted to the server.

Neither Howard nor Carter teach, disclose, or suggest calculating “a predetermined estimation value according to a degree of correspondence of the access requests to the illegal access patterns stored in the illegal pattern database,” or comparing “the estimation value calculated by the pattern estimation unit with a predetermined threshold value,” to “determine whether the access request is to be transmitted to the server.”

The Office Action acknowledges in section 10, in the first full paragraph at page 5, that:

Howard does not explicitly teach of wherein the pattern estimation unit calculates a predetermined estimation value according to a degree of correspondence of the access requests to the illegal access patterns stored in the illegal pattern database; and the pattern determination unit compares the estimation value calculated by the pattern estimation unit with a predetermined threshold value, and determines whether the access request is to be transmitted to the server.

The Office Action attempts to compensate for this deficiency of Howard by combining Howard with Carter.

Carter, however, is not calculating "a predetermined estimation value according to a degree of correspondence of the access requests to the illegal access patterns stored in the illegal pattern database," or comparing "the estimation value calculated by the pattern estimation unit with a predetermined threshold value," to "determine whether the access request is to be transmitted to the server," either, and thus cannot make up for the deficiencies of Howard with respect to claim 1. In Carter, rather, if the system could not recognize an occurrence which threatened the network's security by consulting its knowledge base, the system would draw comparisons to *prior* occurrences to infer appropriate countermeasures. In particular, as described in paragraph [0006]:

The system monitors network operations to detect occurrences which threaten the network's security. The system would attempt to recognize these occurrences, by consulting its knowledge base, to determine the correct response. If the occurrence is not recognized, the system would preferably have the additional capability of drawing comparisons to prior occurrences to infer appropriate countermeasures.

Since, in Carter, if the system could not recognize an occurrence which threatened the network's security by consulting its knowledge base, the system would draw comparisons to prior occurrences to infer appropriate countermeasures, Carter is not calculating "a predetermined estimation value according to a degree of correspondence of the access requests to the illegal access patterns stored in the illegal pattern database," or comparing "the estimation value calculated by the pattern estimation unit with a predetermined threshold value," to "determine whether the access request is to be transmitted to the server," as recited in claim 1.

Nor is the threshold function described in paragraph [0447] of Carter a "predetermined threshold value," as recited in claim 1. The threshold function in Carter, rather, is the argument of a neuron's *activation* function, as described in [0449]:

[0449] The Activation Function, denoted by Φ_k determines the output Y_k of neuron k . The value of the Threshold Function v_k is the argument of the Activation

Function Φ_k . The Activation Function Φ may assume a variety of forms. The flexibility in the forms of Φ enables the Neural Network to more efficiently learn knowledge of greater complexity.

The activation function, in turn, limits the *amplitude* of the neuron's output, as described at paragraph [0443]:

[0443] An activation function limits the amplitude of a neuron's output. The activation function is also referred to as a squashing function in that it squashes (limits) the permissible amplitude range of the output signal to some finite value.

Since the threshold function in Carter is the argument of a neuron's activation function, and the activation function limits the amplitude of the neuron's output, Carter is not comparing "the estimation value calculated by the pattern estimation unit with a predetermined threshold value," to "determine whether the access request is to be transmitted to the server," as recited in claim 1. Thus, even if Howard and Carter were combined as proposed in the Office Action, claim 1 would not result.

Finally, the Office Action provides no motivation or suggestion to combine the teachings of Howard and Carter as required by 35 U.S.C. § 103(a) and the M.P.E.P. §706.02(j)(D), beyond an assertion that "(o)ne of ordinary skill in the art at the time of the invention would have been motivated to make the above mentioned modifications for the reasons discussed in Carter wherein Carter teaches the ability to expand the knowledge base with information relating to unanticipated events is desirable in a network system."

Access requests, however, and particularly legal access requests, are not *unanticipated* events in a network system. Thus, even if Carter taught the desirability of expanding a knowledge base with information related to *unanticipated* events, Carter would still not provide any reason at all to include a pattern estimation unit which estimates legality of an access request based on the illegal access patterns stored in the illegal pattern database, as recited in claim 1. Claim 1 is submitted to be allowable. Withdrawal of the rejection of claim 1 is earnestly solicited.

Claims 2, 4, 6-19, and 26-30 depend from claim 1 and add further distinguishing elements. Claim 2, 4, 6-19, and 26-30 are thus also submitted to be allowable. Withdrawal of the rejection of claim 2, 4, 6-19, and 26-30 is also earnestly solicited.

Claims 33, 34, 36, 38-51, and 58-62:

The second clause of claim 33 recites:

A pattern estimation unit which estimates legality of an access request based on the illegal access patterns stored in the illegal pattern database and on a

predetermined pattern estimation rule.

Neither Howard nor Carter teach, disclose, or suggest "a pattern estimation unit which estimates legality of an access request based on the illegal access patterns stored in the illegal pattern database and on a predetermined pattern estimation rule," as discussed above with respect to the rejection of claim 1.

The fourth clause of claim 33 recites:

Controlling transmission of the access request based on determination result of the pattern determination step so as to transmit the access request to the server when the access request is estimated to be legal.

Neither Howard nor Carter teach, disclose, or suggest "controlling transmission of the access request based on determination result of the pattern determination step so as to transmit the access request to the server when the access request is estimated to be legal," as also discussed above with respect to the rejection of claim 1.

The fifth and sixth clauses of claim 33 recite:

The pattern estimation step includes calculating a predetermined estimation value according to a degree of correspondence of the access requests to the illegal access patterns stored in the illegal pattern database; and the pattern determination step includes comparing the estimation value calculated in the pattern estimation step with a predetermined threshold value, and determining whether the access request is to be transmitted to the server.

Neither Howard nor Carter teach, disclose, or suggest calculating "a predetermined estimation value according to a degree of correspondence of the access request and the illegal access patterns stored in the illegal pattern database," or comparing "the estimation value calculated by the pattern estimation unit with a predetermined threshold value," to "determine whether the access request is to be transmitted to the server," as discussed above with respect to the rejection of claim 1. Thus, even if Howard and Carter were combined as proposed in the Office Action, claim 33 would not result. Claim 33 is submitted to be allowable for at least those reasons discussed above with respect to the rejection of claim 1. Withdrawal of the rejection of claim 33 is earnestly solicited.

Claims 34, 36, 38-51, and 58-62 depend from claim 33 and add further distinguishing elements. Claims 34, 36, 38-51, and 58-62 are thus also submitted to be allowable. Withdrawal of the rejection of claims 34, 36, 38-51, and 58-62 is also earnestly solicited.

Claim 65:

The second clause of claim 65 recites:

Estimating legality of an access request based on the illegal access patterns referred to and on a predetermined pattern estimation rule.

Neither Howard nor Carter teach, disclose, or suggest "estimating legality of an access request based on the illegal access patterns referred to and on a predetermined pattern estimation rule," as discussed above with respect to the rejection of claim 1.

The fourth clause of claim 65 recites:

Controlling transmission of the access request based on determination result of the pattern determination step so as to transmit the access request to the server when the access request is estimated to be legal.

Neither Howard nor Carter teach, disclose, or suggest "controlling transmission of the access request based on determination result of the pattern determination step so as to transmit the access request to the server when the access request is estimated to be legal," as also discussed above with respect to the rejection of claim 1.

The fifth and sixth clauses of claim 65 recite:

The pattern estimation step includes calculating a predetermined estimation value according to a degree of correspondence of the access requests to the illegal access patterns stored in the illegal pattern database; and the pattern determination step includes comparing the estimation value calculated in the pattern estimation step with a predetermined threshold value, and determining whether the access request is to be transmitted to the server.

Neither Howard nor Carter teach, disclose, or suggest calculating "a predetermined estimation value according to a degree of correspondence of the access request and the illegal access patterns stored in the illegal pattern database," or comparing "the estimation value calculated by the pattern estimation unit with a predetermined threshold value," to "determine whether the access request is to be transmitted to the server," as discussed above with respect to the rejection of claim 1. Thus, even if Howard and Carter were combined as proposed in the Office Action, claim 65 would not result. Claim 65 is submitted to be allowable for at least those reasons discussed above with respect to the rejection of claim 1. Withdrawal of the rejection of claim 65 is earnestly solicited.

Claim 66:

The fourth clause of claim 66 recites:

Estimating legality of an access request based on the illegal access patterns referred to and on a predetermined pattern estimation rule.

Neither Howard nor Carter teach, disclose, or suggest "estimating legality of an access request

based on the illegal access patterns referred to and on a predetermined pattern estimation rule," as discussed above with respect to the rejection of claim 1.

The fifth clause of claim 66 recites:

Determining whether the access request is to be transmitted to the server based on the estimate of the legality of the access request.

Neither Howard nor Carter teach, disclose, or suggest "determining whether the access request is to be transmitted to the server based on the estimate of the legality of the access request," as also discussed above with respect to the rejection of claim 1.

The sixth and seventh clauses of claim 66 recite:

The estimating includes calculating a predetermined estimation value according to a degree of correspondence of the access request to the pattern of illegal access stored in the illegal pattern database; and the determining includes comparing the estimation value calculated in the estimating with a predetermined threshold value, and determining whether the access request is to be transmitted to the server.

Neither Howard nor Carter teach, disclose, or suggest calculating "a predetermined estimation value according to a degree of correspondence of the access request and the illegal access patterns stored in the illegal pattern database," or comparing "the estimation value calculated by the pattern estimation unit with a predetermined threshold value," to "determine whether the access request is to be transmitted to the server," as discussed above with respect to the rejection of claim 1. Thus, even if Howard and Carter were combined as proposed in the Office Action, claim 66 would not result. Claim 66 is submitted to be allowable for at least those reasons discussed above with respect to the rejection of claim 1. Withdrawal of the rejection of claim 66 is earnestly solicited.

Claim 67:

The second clause of claim 67 recites:

Estimating a legality of an access request based on an illegal access pattern stored in an illegal pattern database and on a predetermined pattern estimation rule.

Howard neither teaches, discloses, nor suggests "estimating a legality of an access request based on an illegal access pattern stored in an illegal pattern database and on a predetermined pattern estimation rule," as discussed above with respect to the rejection of claim 1.

The third clause of claim 67 recites:

Determining whether the access request is to be abandoned based on the estimate of the legality of the access request.

Howard neither teaches, discloses, nor suggests "determining whether the access request is to be transmitted to the server based on the estimate of the legality of the access request," as recited in claim 67. Howard, rather, denies requests associated with input strings having an attack pattern, as discussed above with respect to the rejection of claim 1.

The fourth and fifth clauses of claim 67 recite:

The estimating includes calculating a predetermined estimation value according to a degree of correspondence of the access request to the pattern of illegal access stored in the illegal pattern database; and
the determining includes comparing the estimation value to a predetermined threshold value, and determining whether the access request is to be abandoned.

Neither Howard nor Carter teach, disclose, or suggest calculating "a predetermined estimation value according to a degree of correspondence of the access request and the illegal access patterns stored in the illegal pattern database," or comparing "the estimation value calculated by the pattern estimation unit with a predetermined threshold value," to "determine whether the access request is to be transmitted to the server," as discussed above with respect to the rejection of claim 1. Thus, even if Howard and Carter were combined as proposed in the Office Action, claim 67 would not result. Claim 67 is submitted to be allowable for at least those reasons discussed above with respect to the rejection of claim 1. Withdrawal of the rejection of claim 67 is earnestly solicited.

Claims 31, 32, 63, and 64:

Claims 31, 32, 63, and 64 were rejected under 35 U.S.C. § 103 as being unpatentable over Howard and Carter, and further in view of US 6,535,855 to Cahill *et al.* (hereinafter "Cahill"). The rejection is traversed. Reconsideration is earnestly solicited.

Claims 31 and 32 depend from claim 1 and add further distinguishing elements. Neither Howard nor Carter teach, disclose, or suggest "a pattern estimation unit which estimates legality of an access request based on the illegal access patterns stored in the illegal pattern database and on a predetermined pattern estimation rule," or "a transmission unit which controls transmission of the access request based on the determination result of the pattern determination unit so as to transmit the access request to the server when the access request is estimated to be legal," as discussed above.

Cahill does not either, and thus cannot make up for this deficiency of Howard and Carter with respect to claims 31 and 32. Thus, even if Howard, Carter and Cahill were combined, as

proposed in the Office Action, the claimed invention would not result.

Finally, the Office Action provides no motivation or suggestion to combine the teachings of Howard, Carter and Cahill as required by 35 U.S.C. § 103(a) and the M.P.E.P. §706.02(j)(D), beyond an assertion that "(o)ne of ordinary skill in the art at the time of the invention would have been motivated to make the above mentioned modifications for the reasons discussed in Carter, Paragraph [0026]".

In paragraph [0026], however, while Carter opines that monitoring and protecting network communication over the Internet is a major purpose of network surveillance and security systems, Carter fails to mention any reason at all to include a pattern estimation unit which estimates legality of an access request based on the illegal access patterns stored in the illegal pattern database, as recited in claim 1. Thus, even if persons of ordinary skill in the art would have been motivated by paragraph [0026] of Carter at the time of the invention, there is no reason to believe the claimed invention would be at all the result. Claims 31 and 32 are thus also submitted to be allowable. Withdrawal of the rejection of claims 31 and 32 is earnestly solicited.

Claims 63 and 64:

Claims 63 and 64 depend from claim 33 and add further distinguishing elements. Neither Howard nor Carter teach, disclose, or suggest "'a pattern estimation unit which estimates legality of an access request based on the illegal access patterns stored in the illegal pattern database and on a predetermined pattern estimation rule," or "controlling transmission of the access request based on determination result of the pattern determination step so as to transmit the access request to the server when the access request is estimated to be legal," as discussed above.

Cahill does not either, and thus cannot make up for this deficiency of Howard and Carter with respect to claims 63 and 64. Thus, even if Howard, Carter and Cahill were combined, as proposed in the Office Action, the claimed invention would not result.

Finally, the Office Action provides no motivation or suggestion to combine the teachings of Fuh, Carter and Cahill as required by 35 U.S.C. § 103(a) and the M.P.E.P. §706.02(j)(D), beyond an assertion that "(o)ne of ordinary skill in the art at the time of the invention would have been motivated to make the above mentioned modifications for the reasons discussed in Carter, Paragraph [0026]", as discussed above. Claims 63 and 64 are submitted to be allowable. Withdrawal of the rejection of claims 63 and 64 is earnestly solicited.

Claims 20, 21, 52 and 53:

Claims 20, 21, 52 and 53 were rejected under 35 U.S.C. § 103 as being unpatentable over Howard in view of US Patent Application Publication 2002/0165894 to Kashani *et al.* (hereinafter "Kashani") and US Patent Application Publication 2003/0135555 to Birrel *et al.* (hereinafter "Birrel"). The rejection is traversed to the extent it might apply to the claims as amended. Reconsideration is earnestly solicited.

Claims 20 and 21 depend from claim 1 and add further distinguishing elements. Howard neither teaches, discloses, nor suggests "a pattern estimation unit which estimates legality of an access request based on the illegal access patterns stored in the illegal pattern database and on a predetermined pattern estimation rule," or "a transmission unit which controls transmission of the access request based on the determination result of the pattern determination unit so as to transmit the access request to the server when the access request is estimated to be legal," as discussed above with respect to the rejection of claim 1.

The Office Action acknowledges in section 10, at page 5, that "Howard does not explicitly teach of wherein the pattern estimation unit calculates a predetermined estimation value according..." as recited in claim 1, from which claims 20 and 21 depend. Neither Kashani nor Birrel do not either, and thus cannot make up for this deficiency of Howard with respect to claims 20 and 21. Thus, even if Howard, Kashani and Birrel were combined as proposed in the Office Action, the claimed invention would not result. Claims 20 and 21 are submitted to be allowable. Withdrawal of the rejection of claims 20 and 21 is earnestly solicited.

Claims 52 and 53:

Claims 52 and 53 depend from claim 33 and add further distinguishing elements. Howard neither teaches, discloses, nor suggests "a pattern estimation unit which estimates legality of an access request based on the illegal access patterns stored in the illegal pattern database and on a predetermined pattern estimation rule," or "controlling transmission of the access request based on determination result of the pattern determination step so as to transmit the access request to the server when the access request is estimated to be legal," as discussed above with respect to the rejection of claim 33.

The Office Action acknowledges in section 10, at page 5, that "Howard does not explicitly teach of wherein the pattern estimation unit calculates a predetermined estimation value according..." Neither Kashani nor Birrel do not either, and thus cannot make up for this deficiency of Howard with respect to claims 52 and 53. Thus, even if Howard, Kashani and Birrel

were combined as proposed in the Office Action, the claimed invention would not result. Claims 52 and 53 are submitted to be allowable. Withdrawal of the rejection of claims 52 and 53 is earnestly solicited.

Claims 22-25 and 54-57:

Claims 22-25 and 54-57 were rejected under 35 U.S.C. § 103 as being unpatentable over Howard in view of Carter and Kashani. The rejection is traversed. Reconsideration is earnestly solicited.

Claims 22-25 depend from claim 1 and add further distinguishing elements. Howard neither teaches, discloses, nor suggests "a pattern estimation unit which estimates legality of an access request based on the illegal access patterns stored in the illegal pattern database and on a predetermined pattern estimation rule," or "a transmission unit which controls transmission of the access request based on the determination result of the pattern determination unit so as to transmit the access request to the server when the access request is estimated to be legal," as discussed above with respect to the rejection of claim 1.

Neither Carter nor Kashani do either, and thus cannot make up for this deficiency of Howard with respect to claims 22-25. Thus, even if Howard, Carter and Kashani were combined as proposed in the Office Action, the claimed invention would not result. Claims 22-25 are submitted to be allowable. Withdrawal of the rejection of claims 22-25 is earnestly solicited.

Claims 54-57:

Claims 54-57 depend from claim 33 and add further distinguishing elements.

Howard neither teaches, discloses, nor suggests "a pattern estimation unit which estimates legality of an access request based on the illegal access patterns stored in the illegal pattern database and on a predetermined pattern estimation rule," or "controlling transmission of the access request based on determination result of the pattern determination step so as to transmit the access request to the server when the access request is estimated to be legal," as discussed above with respect to the rejection of claim 33. Neither Carter nor Kashani do either, and thus cannot make up for this deficiency of Howard with respect to claims 54-57. Thus, even if Howard, Carter and Kashani were combined as proposed in the Office Action, the claimed invention would not result. Claims 54-57 are submitted to be allowable. Withdrawal of the rejection of claims 54-57 is earnestly solicited.

Conclusion:

Accordingly, in view of the reasons given above, it is submitted that all of claims 1, 2, 4, 6-34, 36, and 38-67 are allowable over the cited references. Allowance of all claims 1, 2, 4, 6-34, 36, and 38-67 and of this entire application is therefore respectfully requested.

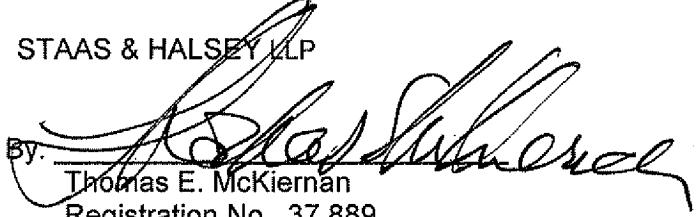
Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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By:


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